

**Date: May 21, 2004**

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**SUBJECT: Southern Iraq, JP8 Supplemental  
Solicitation SP0600-04-R-0054-0002**

1. This is solicitation SP0600-04-R-0054-0002 in support of Southern Iraq for the purchase of Turbine Fuel, Aviation (JP8). This supplemental solicitation incorporates the terms and conditions of Solicitation SP0600-04-R-0054 (Southern Iraq Basic) issued January 21, 2004, and Amendments 0001-0013, with the exception of clause deletions, modifications and additions reflected herein. (If you require a copy of SP0600-04-R-0054, please visit our web site at <http://www.desc.dla.mil>).

**2. SUPPLIES TO BE FURNISHED**

The supplies to be furnished during the contract period and all associated data are as follows:

Item/Product/Specification	Estimated Quantity (USG)
<b>Turbine Fuel, Aviation (JP8)</b> NSN: 9130-01-031-5816 SPECIFICATION: MIL-DTL-83133E dated April 01, 1999 (See Clause Attached Clause on Page 8)	<b>36,600,000</b> <b>(200,000 USG per day)</b>

Item	Location/activity	Method of delivery	Estimated Quantity (USG)	Offer Price (USD/USG) Eff. JAN 01, 2004
<b>013-KI</b>	<b>Al-Assad, Iraq</b>	<b>TT</b>	<b>21,960,000</b>	
<b>014-KI</b>	<b>Al-Taquddem, Iraq</b>	<b>TT</b>	<b>14,640,000</b>	

Notes:

1. JP8 includes FSII, CI and SDA.
2. Method of Delivery: TT – Tank Truck
3. All offers must be on a FOB Destination Basis.

**3. ORDERING PERIODS.** The ordering and delivery periods are as follows:

**BASIC ORDERING PERIOD:**

- (a) Ordering Period Begins: Date of Award and Ends: December 15, 2004.  
(b) Delivery Period Begins: June 15, 2004 and Ends: December 15, 2004, with a 30-day carryover period.

**4. ECONOMIC PRICE ADJUSTMENT:**

ITEM NO. (LISTED ITEMS)	NAME OF PUBLICATION	HEADING UNDER WHICH REFERENCE PRICE IS PUBLISHED AND NAME OF PRODUCT	LOCATION WHERE REFERENCE PRICE IS APPLICABLE
See Below	Platt's Oilgram Price Report (U.S. Edition)	Product Price Assessments  (European Bulk)	See Below

LINE ITEMS	PRODUCT	REFERENCE PRODUCT (LOCATION)	REFERENCE PRICE / USG EFFECTIVE: JANUARY 1, 2004
013-KI	Turbine Fuel, Aviation	Jet Av. Fuel (100% FOB Med Basis Italy)	\$0.898849

**NOTE** Product prices will escalate twice monthly based on the average of high and low quotations contained in the Platt's publication during the periods of time of the 1<sup>st</sup> through the 15<sup>th</sup>, and then the 16<sup>th</sup> through the 30<sup>th</sup>/31<sup>st</sup> (as applicable) of each month in which deliveries are made. Therefore, the effective price for the period of the 1<sup>st</sup> through the 15<sup>th</sup> will be the average of the high and low quotations for the previous month's prices posted on the 16<sup>th</sup> through the 30<sup>th</sup>/31<sup>st</sup>. Saturdays and Sundays shall be considered as Platt's non-publication days. If prices are not posted by Platt's during the period that delivery was made due to a holiday or another occurrence, only the posted prices for that period will be used in the calculation.

**5. INFORMATION TO BE PROVIDED.** No hard copy of this solicitation will be issued however, the following information must be provided with your initial offer:

**OFFER INFORMATION SHEET**

1. State the minimum/maximum quantities for award by shipping point:

PRODUCT	MODE	SHIPPING POINT	MINIMUM QUANTITY (U.S. GALLONS/ METRIC TONS)	MAXIMUM QUANTITY (U.S. GALLONS/ METRIC TONS)
KIQ	TT			

2. State the minimum/maximum quantities available for delivery per day:

PRODUCT	MODE	LOCATION/ACTIVITY POINT	MINIMUM QUANTITY (U.S. GALLONS)	MAXIMUM QUANTITY (U.S. GALLONS)
KIQ	TT			

3. State the maximum quantity available per month:

PRODUCT	MODE	MAXIMUM MONTHLY QUANTITY (USG)
KIQ	TT	

4. State the tank truck parcel sizes available:

PRODUCT	MODE	SHIPPING POINT	MINIMUM QUANTITY (USG)	MAXIMUM QUANTITY (USG)
KIQ	TT			

5. State the name/address of the trucking company(ies) utilized to transport the product to the destinations:

PRODUCT	MODE	NAME/ADDRESS OF TRUCKING COMPANY

6. Please provide DUNS Number: \_\_\_\_\_
7. **TERMS AND CONDITIONS.** Acceptance of the terms and conditions of RFP SP0600-04-R-0054 and Amendments 0001 - 0013 are required and must be stated in the offer.
8. **CERTIFICATIONS & REPRESENTATIONS:** If you submitted an offer under RFP SP0600-04-R-0054, please confirm in writing that the certifications and representations of the offer remain in effect for your offer under RFP SP0600-04-R-0054-0002.
9. **CLOSING.** Closing date and time for this solicitation is Wednesday, May 26, 2004, at 1:00 p.m. (1300 hours), local time, Ft. Belvoir, Virginia, USA.
10. **LATE OFFERS.** Offers received after the date and time specified above will be considered late in accordance with paragraph INSTRUCTIONS TO OFFERORS – COMMERCIAL ITEMS. This was paragraph 12 of the OSP from the original solicitation.
11. **All offerors must submit a letter from the Jordanian government which permits the contractor to bring fuel through Jordanian territory in transit to Iraq prior to the close of negotiations on June 3, 2004.**

- 12. NEGOTIATION SCHEDULE.** The following tentative negotiation schedule is provided for planning purposes. Note this schedule is subject to change at any time:

<b>May 26, 2004</b>	<b>INITIAL OFFER CLOSING DATE (1:00 P.M.)</b>
<b>May 27, 2004</b>	<b>NEGOTIATIONS OPEN</b>
<b>June 3, 2004</b>	<b>NEGOTIATIONS CLOSE</b>

- 13.** Paragraph 8, DELIVERY AND ORDERING PERIODS, is deleted from the solicitation and replaced on Page 7.
- 14.** Paragraph 12, CONTRACT TERMS AND CONDITIONS -- COMMERCIAL ITEMS, is deleted from the solicitation and replaced on Page 8.
- 15.** Paragraph 30, CONVERSION FACTORS, is deleted from the solicitation and replaced on Page 10.
- 16. UPDATES.** Please see the attached clauses that are updated from the basic solicitation, SP0600-04-R-0054.
- 17. SUBMISSION OF OFFERS BY FACSIMILE.** The facsimile transmission number for submission of offers is (703) 767-0488. If for any reason you experience any difficulties with this number, or if you have questions concerning this solicitation please contact Contract Specialist, Erin Ralph, at telephone (703) 767-9294.
- 18. NOTE:** The Government intends to evaluate proposals and award a contract after conducting discussions with offerors whose proposals have been determined to be within the competitive range. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals. Therefore, the offeror's initial proposal should contain the offeror's best terms from a price and technical standpoint. While the Government intends to evaluate offers and award a contract after oral or written discussions with offerors, it reserves the right not to conduct discussions, as determined by the Contracting Officer. However, the offeror's initial offer should contain the offeror's best terms from a price and technical standpoint. The Government reserves the right not to conduct discussions as determined by the Contracting Officer. The Government may reject any or all offers if such action is in the public interest; accept other than the lowest offer; and waive informalities and minor irregularities in offers received.

JOY E. MULLORI  
Overseas Contracting Officer  
Bulk Fuels Division

## **8. DELIVERY AND ORDERING PERIODS**

(a) This clause applies to all modes of delivery, whether origin or destination.

(b) The period of this contract during which the Ordering Officer may order and the Contractor shall deliver, if ordered, shall be as follows unless the item in the Schedule specifies otherwise:

(1) For the basic period: Ordering Period Begins: Date of Award and Ends: December 15, 2004

(2) For the basic period: Delivery Period Begins: June 15, 2004 and Ends: December 15, 2004, with a thirty day carryover period.

(c) Notwithstanding the foregoing, deliveries made prior to the delivery period at the option of the Contractor and pursuant to an order by the Government shall be deemed to have been made under this contract at the applicable contract price(s).

(d) Notwithstanding the foregoing delivery period(s), if an order is placed prior to the end of the ordering period that requires delivery within 30 days following the end of the ordering period, the Contractor shall deliver the ordered volume.

(e) Insofar as practicable, the Government will attempt to lift in approximately equal monthly quantities for the life of the contract. However, if the monthly pro rata for tanker lifting is less than the Contractor's maximum parcel size, the Government reserves the right to order volumes equal to the maximum parcel size per delivery.

(f) Unless otherwise specifically stated in this contract, and notwithstanding (e) above, where the total estimated quantity for any individual product or grade of product awarded under this contract is equal to or less than 30,000 barrels, the Government may order, and the Contractor shall deliver, if ordered, the entire quantity in one delivery.

(g) Nothing included in this clause shall restrict the Government's rights under the DELIVERY-ORDER LIMITATIONS - SCOPE OF CONTRACT clause.

## **12. CONTRACT TERMS AND CONDITIONS -- COMMERCIAL ITEMS**

(a) **INSPECTION/ACCEPTANCE.** See Page 15.

(b) **ASSIGNMENT.** The Contractor or its assignee may assign its rights to receive payment due, as a result of performance of this contract, to a bank, trust company, or other financing institution, including any Federal lending agency in accordance with the Assignment of Claims Act (31 U.S.C. 3727). However, when a third party makes payment (e.g., use of the Government-wide commercial purchase card), the Contractor may not assign its right to receive payment under this contract.

(c) **CHANGES.** See Page 20

(d) **DISPUTES.** This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613). Failure of the parties to this contract to reach agreement on any request for equitable adjustment, claim, appeal or action arising under or relating to this contract shall be a dispute to be resolved in accordance with the clause at FAR 52.233-1, DISPUTES, which is incorporated herein by reference. The Contractor shall proceed diligently with performance of this contract, pending final resolution of any dispute arising under the contract.

(e) **DEFINITIONS.** The clause at FAR 52.202-1, DEFINITIONS, is incorporated herein by reference.

(f) **EXCUSABLE DELAYS.** The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Contractor and without its fault or negligence, such as acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, and unusually severe weather. The Contractor shall notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.

(g) **INVOICE.** Invoices will be handled in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) prompt payment regulations at 5 CFR part 1315. **Note:** Contractors are also required to provide additional information in their invoices as specified in the Addendum, as discussed in the SUPPLEMENTAL INVOICING INFORMATION (BULK) clause.

(h) **PATENT INDEMNITY.** The Contractor shall indemnify the Government and its officers, employees and agents against liability, including costs, for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark or copyright, arising out of the performance of this contract, provided the Contractor is reasonably notified of such claims and proceedings.

(i) **PAYMENT.**

(1) **Items accepted.** Payment shall be made for items accepted by the Government that have been delivered to the delivery destinations set forth in this contract.

(2) **Prompt payment.** The Government will make payment in accordance with the Prompt Payment Act (31 U.S.C. 3903) and prompt payment regulations at 5 CFR part 1315.

(3) **Electronic Funds Transfer (EFT).** If the Government makes payment by EFT, see 52.212-5(b) for the appropriate EFT clause.

(4) **Discount.** In connection with any discount offered for early payment, time shall be computed from the date of the invoice. For the purposes of computing the discount earned, payment shall be considered to have been made on the date which appears on the payment check or the specified payment date if an electronic funds transfer payment is made.

(5) **Overpayments.** If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(j) **RISK OF LOSS:** See Page 20

(l) **TERMINATION FOR THE GOVERNMENT'S CONVENIENCE.** The Government reserves the right to terminate this contract, or any part thereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Contractor can demonstrate to the satisfaction of the Government using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred which reasonably could have been avoided.

(m) **TERMINATION FOR CAUSE.** The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such termination shall be deemed a termination for convenience.

(n) **TITLE.** Unless specified elsewhere in this contract, title to items furnished under this contract shall pass to the Government upon acceptance, regardless of when or where the Government takes physical possession.

(o) **WARRANTY.** The Contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this contract.

(p) **LIMITATION OF LIABILITY.** Except as otherwise provided by an express warranty, the Contractor will not be liable to the Government for consequential damages resulting from any defect or deficiencies in accepted items.

(q) **OTHER COMPLIANCES.** The Contractor shall comply with all applicable Federal, State, and local laws, executive orders, rules, and regulations applicable to its performance under this contract.

(r) **COMPLIANCE WITH LAWS UNIQUE TO GOVERNMENT CONTRACTS.** The Contractor agrees to comply with 31 U.S.C. 1352 relating to limitations on the use of appropriated funds to influence certain Federal contracts; 18 U.S.C. 431 relating to officials not to benefit; 40 U.S.C. 327 et seq., Contract Work Hours and Safety Standards Act; 41 U.S.C. 51-58, Anti-Kickback Act of 1986, 41 U.S.C. 265 and 10 U.S.C. 2409 relating to whistle blower protections; 49 U.S.C. 40118, Fly American; and 41 U.S.C. 423 relating to procurement integrity.

(s) **ORDER OF PRECEDENCE.** Any inconsistencies in this solicitation or contract shall be resolved by giving precedence in the following order:

- (1) The schedule of supplies/services.
- (2) The Assignments; Disputes; Payments; Invoices; Other Compliances; and Compliance with Laws Unique to Government Contracts paragraphs of this clause.
- (3) The clause at 52.212-5.
- (4) Addenda to this solicitation or contract, including any license agreements for computer software.
- (5) Solicitation provisions if this is a solicitation.
- (6) Other paragraphs of this clause.
- (7) Standard Form 1449.
- (8) Other documents, exhibits, and attachments; and.
- (9) The specification.



### 30. CONVERSION FACTORS

(a) This provision applies to all products except lubricating oils.

(b) The offeror should use conversion factors that reflect its product characteristics and submit prices and transportation rates in the requested units. In the event prices or transportation rates are not submitted in the requested units, the following conversion factors based on an assumed density for the product will be used by DESC in the evaluation of the offer.

(1) **TABLE I.**

One Imperial Gallon	=	1.20095 U.S. Gallons at the same temperature
One Liter	=	0.264172 U.S. Gallons at the same temperature
One Cubic Meter (1,000 liters)	=	6.2898 Barrels at the same temperature
One U.S. Barrel	=	42 U.S. Gallons at the same temperature
One Kilometer	=	0.62137 Miles
One Mile	=	1.6093 Kilometers
One Nautical Mile	=	1.15 Statute Miles

(2) **TABLE II.**

PRODUCT	DENSITY TYPICAL		BARRELS PER METRIC TON	GALLONS PER METRIC TON	LITERS PER METRIC TON	BARRELS PER LONG TON	GALLONS PER LONG TON
	@15°C	@60°F					
	Kg/m <sup>3</sup>	API					
AUTOMOTIVE							
GASOLINE (ALL)	744.9	58.4	8.462	355.42	1342.46	8.598	361.12
AVIATION							
GASOLINE (ALL)	716.3	66.0	8.801	369.66	1396.06	8.943	375.59
BURNER FUEL OILS							
FUEL OIL NO. 1	812.8	42.5	7.753	325.61	1230.31	7.877	330.83
FUEL OIL NO. 2	846.9	35.5	7.440	312.49	1180.78	7.560	317.51
FUEL OIL NO. 4	914.2	23.2	6.891	289.44	1093.85	7.002	294.09
FUEL OIL							
NO. 5 LIGHT	954.2	16.7	6.602	277.27	1048.00	6.707	281.71
FUEL OIL NO.							
5 HEAVY	960.7	15.7	6.557	275.39	1040.91	6.662	279.81
FUEL OIL NO. 6	976.6	13.3	6.450	270.90	1023.96	6.554	275.25
DIESEL FUELS							
DFA	810.5	43.0	7.775	326.54	1233.81	7.900	331.79
DF1	818.9	41.2	7.695	323.17	1122.15	7.818	328.36
DF2/GAS OIL	839.3	37.0	7.507	315.30	1191.47	7.628	320.36
INTERMEDIATE FUEL OILS							
IFO 60	947.2	17.8	6.651	279.33	1055.74	6.757	283.81
IFO 180	965.3	15.0	6.526	274.09	1035.95	6.630	278.48
IFO 220	967.9	14.6	6.508	273.34	1033.16	6.612	277.72
IFO 380	973.9	13.7	6.468	271.65	1026.68	6.572	276.01

JET FUELS

JP4/JET B	764.6	53.5	8.243	346.22	1307.87	8.376	351.78
JP5	819.9	41.0	7.686	322.80	1219.66	7.809	327.98
JP8/JET A1	805.9	44.0	7.820	328.42	1240.85	7.945	333.69
JET A	814.2	42.2	7.739	325.04	1228.20	7.863	330.26
KEROSINES (ALL)	815.2	42.0	7.730	324.68	1226.69	7.854	329.88
MARINE GAS OIL	839.3	37.0	7.507	315.30	1191.47	7.628	320.36
NAPHTHA	731.1	62.0	8.623	362.16	1367.80	8.761	367.97
NAVAL DISTILLATE FUEL (F76)							
AND DFW (F75)	844.3	36.0	7.463	313.43	1184.41	7.582	318.46

(3) **TABLE III.**

<u>PRODUCT</u>	<u>ASSUMED DENSITY</u> <u>20 deg C/20 deg C</u>		
	<u>g/mL</u>	<u>lb/gal</u>	<u>Kg/gal</u>
FSII DIEGME	1.025	8.561	3.884
(DESC 52.215-9FA1)			

## **TURBINE FUEL, AVIATION (JP8)**

For the purposes of this clause, the term **Aviation Turbine Fuel** refers to both JP8 and AN8. Aviation Turbine Fuel shall conform to MIL-DTL-83133E, dated April 1, 1999, modified as follows:

(a) **ADDITIVES.** Additives are required for deliveries of Aviation Turbine Fuel per MIL-DTL-83133E, unless addition is excluded by specific solicitation line item, applicable contract clause, or other contractual requirements.

(1) Metal deactivator additive shall not be used in Aviation Turbine Fuel unless the supplier has obtained written consent from the Procuring Activity.

(2) For Aviation Turbine Fuel containing hydrogen treated blendstocks, the following applies: Where a finished fuel consists of a blend of hydrogen treated and nonhydrogen treated components, the requirement for mandatory addition of antioxidant (MIL-DTL-83133E, paragraph 3.3.1) applies only to the portion of the blend that has been hydrogen treated. In such cases, the percentage of the blend that has been hydrogen treated shall be reported.

(3) The CI/LI additive(s) used shall be of the type and concentration cited in QPL 25017-19 (latest revision). As of the date of this clause revision, QPL 25017-19, dated March 15, 2001, is the current version of the QPL.

(4) When required, Fuel System Icing Inhibitor (FSII) shall conform to MIL-DTL-85470B, dated June 15, 1999, at a concentration of 0.10 to 0.15 volume percent, unless otherwise stated in the Schedule.

(5) Static Dissipator Additive (SDA) is required to be added to all Aviation Turbine Fuel shipped directly to an end user without passing through a fuel terminal. SDA is not permitted in shipments to/through a fuel terminal that supplies an end user unless authorized in the Schedule. When SDA is required by the contract, it shall be added proportionately to obtain a conductivity range of 150 to 450 picosiemens per meter. The new formulation of STADIS 450 (active ingredient dinonynaphthylsulfonic acid (DINNSA)) shall be used when SDA is required.

(6) Line injection of additives (FSII, corrosion inhibitor, and SDA) from shipping tank to delivery conveyance or other f.o.b. point is permitted under the following conditions:

(i) A laboratory hand blend containing the required additives and jet fuel must be tested to verify compliance with the required specification. (Microseparometer (MSEP) can be performed without SDA present.)

(ii) Additives must be proportionately injected throughout the entire loading process to ensure the additive is homogeneously blended into the jet fuel. The Contractor shall maintain records evidencing the homogeneous blending of all line injected additives. Such methods may include meter or tank gauge readings or test results taken at intervals to provide confidence in the injection process.

(iii) When FSII is line injected, additive concentration (refer to MIL-DTL-83133E specification for test methods permitted) must be verified based on a representative shipment sample(s).

### **(b) TESTING.**

#### **(1) PARTICULATE CONTAMINATION (PC) TESTING AND FILTRATION TIME (FT) TESTING.**

(i) **PC/FT TESTING.** A minimum sample size of one gallon shall be filtered. Use of two membrane filters (a test membrane filter and a control membrane filter) is not required. Use of a single filter is acceptable.

(ii) **FT TESTING.** Round upwards when reporting the filtration time, in minutes. For example, a filtration time of 10 minutes, 18 seconds, would be reported as 11 minutes.

#### **(2) MICROSEPAROMETER (MSEP) RATING LIMITS.**

(i) Refer to MIL-DTL-83133E.

(ii) Prior to initial production under this contract, the Contractor shall elect, on a one-time basis, which MSEP limit will be met for the balance of the contract. If the Contractor introduces FSII and/or CI after verification of product conformance with the MSEP requirement, the product is not required to meet a fixed limit on subsequent MSEP tests.

(iii) If the Contractor elects to verify conformance with the MSEP requirement on a sample of product that does not contain FSII and CI, an additional MSEP test shall be performed on a hand blend containing Aviation Turbine Fuel, FSII, CI, and AO (AO only if required). The FSII shall be included in this hand blend at a concentration of 0.10 to 0.15 volume percent and the amount of the CI included shall be within the concentration range specified in QPL 25017. The MSEP result of this hand blend is a REPORT ONLY requirement, and shall be recorded on the DD Form 250-1 and on the Standardized Report Form (see Attachment \_I\_) as item 750X. This result shall be recorded with an asterisk next to it and a footnote below stating "**MSEP result is a report only requirement.**" Original result of \_\_\_\_\_ on product containing the following additives applies:

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(3) **THERMAL STABILITY.** The thermal stability test (JFTOT), ASTM D 3241-01, specifies use of a new heater tube for each test. As a crosscheck, and to confirm use of only new heater tubes, thermal stability testing shall be conducted using heater tubes that can be identified by a serial number. Thermal stability testing shall be performed according to either Option A or B described below:

(i) **OPTION A.** In addition to the thermal stability testing requirements of MIL-DTL-83133E, an additional JFTOT shall be performed with the temperature of the test being 275 degrees Celsius (530 degrees Fahrenheit) in lieu of the normal 260 degrees Celsius (500 degrees Fahrenheit).

(ii) **OPTION B.** The thermal stability test shall be performed with the temperature of the test being 275 degrees Celsius (530 degrees Fahrenheit). If the fuel fails the JFTOT at this temperature, a second test will be performed at 260 degrees Celsius (500 degrees Fahrenheit). If both tests are performed, the results of the test at 260 degrees Celsius (500 degrees Fahrenheit) will be the basis for acceptance or rejection of the fuel.

(4) **EXISTENT GUM.** The preferred vaporizing medium for aviation turbine fuel is steam, however, the existent gum test (ASTM D 381-01) may be performed using air as the vaporizing medium at the following operating temperatures: Bath: 232 to 246 degrees Celsius; Test well: 229 to 235 degrees Celsius.

(c) **REPORTS.**

(1) ) Refer to the MATERIAL INSPECTION AND RECEIVING REPORT clause (52.246-9FG1) for additional reporting requirements.

(2) Regardless of which thermal stability testing option is chosen (Option A or B above), the test temperature and the results of the JFTOT used for product acceptance shall be recorded on the DD Form 250-1. When completing the Standardized Test Report Form, after indicating the JFTOT test temperature at which the acceptance JFTOT test was performed by selecting either "A" or "B" next to code 600, record the results obtained for the acceptance JFTOT test vice codes 601 and 602 and report the serial number of the heater tube used for the acceptance JFTOT test vice code 608. If a second JFTOT test is performed at a different temperature, use code 604 to report the actual temperature of the second test in degrees Celsius, use codes 605 and 606 to report the results, and use code 609 to report the serial number of the tube used in the second JFTOT test.

(3) The DD Form 250-1 for marine shipments shall cite the type, name and amount of additives added to the fuel.

(d) **ADDITIONAL REQUIREMENT APPLICABLE TO AN8 ONLY.** This product is used for Antarctic fuels operations and must have a freeze point of minus 58 degrees Celsius (minus 72 degrees Fahrenheit) or lower, while maintaining a flash point of 38 degrees Celsius (100 degrees Fahrenheit) or higher. National Stock Number 9130-01-373-0208 defines the unique product grade.

## CONTRACTOR INSPECTION RESPONSIBILITIES

### (a) QUALITY CONTROL PLAN.

(1) The Contractor is required (unless otherwise instructed by the Government) to provide and maintain an inspection system and a written description (Quality Control Plan (QCP)) acceptable to the Government. The Contractor has the option to provide and maintain an inspection system that, as a minimum, incorporates the requirements of: Q91 (ISO9001) Quality Systems - Model for Quality Assurance in Design/Development, Production Installation, and Servicing, or Q92 (ISO9002) Quality Systems - Model for Quality Assurance in Production and Installation. If the Contractor chooses to comply with Q91 or Q92 quality system format, all the specific Quality Assurance Provisions of this contract must be included in the Q91, Q92 written quality plan. The QCP shall be established and reviewed for adequacy by the Quality Representative (QR) prior to commencement of production or services. The copy of the QCP provided to the QR shall be in English. An acceptable QCP is required prior to Government inspection and acceptance of supplies or services. The QCP shall be reviewed and updated when deemed necessary. It will be updated anytime that changes are made to the inspection system or as identified by quality problems. The Contractor must sign and date each revision to the QCP and require subcontractors to sign and date each revision to the subcontractor's QCP.

(2) The Contractor shall require subcontractors (unless otherwise instructed by the Government) to provide and maintain inspection systems and QCPs that are acceptable to the Government.

(3) The QCP shall include an identification of key operational positions, a schematic diagram of plant facilities pertinent to the inspection system indicating all inspection points, and a description covering the following operations relating to the supplies to be furnished under the contract:

(i) **RECEIVING.** Procedures used to assure quality of additives blended into product supplied under this contract;

(ii) **BLENDING AND COMPOUNDING.** Identification of component base stocks used to produce finished product. Procedures to be used for adding, prior to batching, all required additives at all locations. When procedures for in-line blending of non-aviation products in accordance with the IN-LINE BLENDING OF NON-AVIATION PETROLEUM PRODUCTS clause are used, the QCP will provide for establishing blend ratios, and identify the responsible personnel within the Contractor's organization authorized to establish the blend ratios. When procedures for line injection of additives for products in accordance with a clause that contains LINE INJECTION OF ADDITIVES as used, the QCP will provide procedures for proportionately injecting additives throughout the entire loading process to ensure the additive is homogeneously blended into the jet fuel, procedures for maintaining recordings evidencing the homogeneous blending of all line injected additives. Prior to shipment, a procedure for a laboratory hand blend of jet fuel with all additives required by the contract shall be tested to verify compliance with the required specification;

(iii) **SAMPLING.** Procedures for sampling additives, blend tanks, shipping tanks, lines, and conveyances/containers in accordance with API Manual of Petroleum Measurement Standards (MPMS), Chapter 8, Section 1, (ASTM D 4057) Sampling of Petroleum and Petroleum Products, and/or Section 2, (ASTM D 4177), Automatic Sampling of Petroleum and Petroleum Products. Procedures include location of sample taken, frequency, quantity, minimum tests required on sample, and sample retention procedures. NOTE: For f.o.b. origin tanker, barge, and pipeline shipments, a flow-proportional sample taken in accordance with MPMS Chapter 8.2, Automatic Sampling, is required at the custody transfer point. For other than f.o.b. origin shipments, Automatic In-Line Sampling is preferred at the custody transfer point, but representative samples taken in accordance with MPMS Chapter 8, Section 1, are acceptable. See Table I, Minimum Sampling and Testing Requirements, and Table II, Sample Retention, below;

(iv) **TESTING.** Types of tests and test methods/procedures to be performed on samples taken from each location identified in (iii) above, and may be incorporated by test method reference in the QCP, if complete reference is available at the place of performance. See Table III, "Definition of Test Series." below;

(v) **CALIBRATION.** Program for testing and measuring equipment in accordance with ISO 10012-1, "Quality Assurance Requirements for Measuring Equipment, Part 1, or equivalent local regulation as appropriate; and, a program for meters used to determine quantity complying with the American Petroleum Institute Manual of Petroleum Measurement Standards, Chapters 4, 5, and 6, or equivalent foreign standard. For items not covered by ASTM, API or IP publications, the applicable manufacturer's recommended calibration method, or methods outlined in the applicable industry publication, shall be used if acceptable to the Government;

(vi) **STORAGE AND HANDLING.** Procedures for quality determination and maintenance of physical equipment necessary to ensure product integrity. Includes a description of storage and handling equipment including tanks, lines, valves, and manifolds used; identification of dedicated/common product system including description of line segregation and controls to assure capability for proper gauging, sampling, draining of water, filtration, circulation, drying; and identification of any other process/system used in maintaining product integrity during storage and handling;

(vii) **LOADING AND SHIPPING, GENERAL.** Procedures for product movement and related quality/quantity checks from shipping tank(s) to custody transfer point in order to maintain product integrity. Provide description of transfer system from shipping tank to transfer point in order to maintain product integrity. System must be a dedicated or properly isolated common system incorporating blind flanges, spectacle plates, or double valves between them to prevent contamination. Single valves designed to provide the same protection are also acceptable if positive isolation is assured. Systems with single valve (excluding twin seal single valves) isolation require specific procedures be included in the QCP to assure product integrity after the last single valve and prior to the acceptance point. When single valves are present in the system, the Contractor shall provide their quality control procedures from the first single valve to the custody transfer point at time of bid to the contracting officer for determination of acceptability. Procedures for conditioning and testing of improperly isolated systems to the custody transfer point (including loading arm and hoses used). For in-line blending of non-aviation products, where approved in this contract, requirements must comply with the IN-LINE BLENDING OF NONAVIATION PETROLEUM PRODUCTS clause;

(viii) **LOADING AND SHIPPING - TANK CARS, TANK TRUCKS, AND INTERMODAL CONTAINERS.** Inspect conveyances prior to loading to determine quality/quantity suitability to load as follows: All compartments have been prepared in accordance with Table IV, Conversion Chart for Tank Cars, Tank Trucks, and Intermodal Containers, below. Preparation requirements include hoses. Conveyances carrying lubricating oil will be dry and free from loose rust, scale, and dirt. Conveyances carrying other products will be dry and substantially free from loose rust, scale and dirt. (Procedures to confirm, prior to loading, quality and quantity of product in conveyance when requested by the ordering office to "load on top." Reject conveyance if product cannot be identified or product on board does not meet specification of intended load product. Provide for documentation of load on top occurrences for volume of product prior to load, loaded quantity, and total volume on board the conveyance. Confirm quality and quantity of loaded conveyance.) Provide for investigating discrepancies in either recorded quality or quantity. When required by the contract, seal conveyance and record seal numbers on the DD Form 250. Strainers and filters shall be located as near the loading or filling point as practicable and shall be used as outlined below for all deliveries except deliveries into tanker, barge, or pipeline.

(A) All aviation fuel shall be passed through strainers of 100 mesh or finer screen;

(B) All lubricating oil products, including preservatives, having a kinematic viscosity at 100°F of 20.0 centistokes or less shall be passed through a 100 mesh or finer screen;

(C) All lubricating oil products, including preservatives, having a kinematic viscosity greater than 20.0 centistokes at 100°F, but less than 22.0 centistokes at 210°F, shall be passed through a 60 mesh or finer screen; and

(D) The Contractor shall furnish and periodically inspect strainers and filters pursuant to this paragraph to determine condition and perform maintenance as necessary, keeping a written record thereof.

(ix) **LOADING AND SHIPPING - TANKERS AND BARGES.**

(A) **For f.o.b. destination Contractor-supplied tankers/barges.** State procedures to be used to ensure vessels are suitable to load the intended product.

(B) **For f.o.b. origin Government supplied tanker/barges.** Procedures for maintaining time log of all significant events/delays including vessel notice of readiness, vessel arrival, docking, vessel deballasting, and conditioning of cargo tanks, inspections, hoses connected, starts, stops, release, or any other event that affects laytime of the vessel. Procedures for assuring condition of loading line (full of tested product, all air bled and pressure packed) and gauging shore tanks, both before and after loading. Procedures for preload discussion between Contractor, vessel, and QR to include, but not be limited to, prior three cargoes, cleaning procedures, loading plan, loading rates, sampling requirements, and after loading sampling and gauging. (Prior to loading - sample, gauge and test intransit cargoes designated for load on top. Sample (1 gallon), gauge, and retain any other product on board, except for JP-7 or JP-TS.) All cargo quantities will be calculated and volume corrected both before and after loading. Procedures for commencement of loading into one tank (up to 3 feet). Then switching to at most two other vessel tanks during sampling and testing (Table I). Procedures for the transportation of samples from vessel to the testing facility. Monitoring the loading from source to vessel, investigating irregularities immediately, stopping loading if necessary. Procedures for investigating discrepancies in quality (mandated if off-specification or out of testing tolerance) and quantity (mandated if ship to shore variance is greater than 0.5 percent or figures suspect) on loaded conveyance.

(C) **For both f.o.b. origin and destination supplied tankers/barges.** Procedures for immediately notifying the QR when irregularities occur or are suspected and on all occasions when loading is interrupted. Procedures for completing and distributing required documentation prior to release of the vessel. Documentation includes DD Form 250-1 and DD Form 250-1 continuation sheet, ullage reports, bills of lading, customs documentation, and results of quality/quantity investigations. **Authority to release a Government furnished vessel rests with the Government QR after compliance and completion by the Contractor of all required operations, including the preparation of the DD Forms 250-1.**

(x) **RECORDS AND REPORTS.** To include at a minimum, test reports on product and additives, additive blending and/or injection records, vessel port logs, vessel notice of readiness, calibration documents, and the DD Forms 250 and 250-1 and continuation sheet(s). These records and reports will include by whom, where, and how prepared, and retention information. The DD Form 250-1 and DD Form 250-1 continuation sheet(s) will be signed by the Contractor in the appropriate block before presenting to the QR. The DD Form 250 and DD Form 250-1 shall identify type, brand name, and amount of additive(s).

(xi) **CORRECTIVE ACTION.** Actions to be followed to effect correction of any deficiency affecting product quality or quantity determination, such as handling of off-specification product (waivers, conveyance rejections, etc.). The corrective action procedures shall include notification of the QR.

(4) The QCP shall identify one individual to serve as a point of contact for quality/quantity matters relating to the inspection system described in the plan.

(5) The Contractor is responsible for all inspection systems, QCPs, and product quality and quantity.

(6) The Government QR will be available to review and discuss the Contractor's proposed QCP; however, the Contractor shall remain responsible for developing and describing acceptable quality control procedures.

(b) The Contractor shall perform all inspection and acceptance tests required by the specifications of the supplies to be furnished under this contract or shall have such tests performed in a laboratory acceptable to the Government. When such tests are performed at origin on supplies to be accepted at destination, documentation that will enable verification of the original test results shall be provided to the Government at the time of acceptance.

(c) The Contractor may inspect Government-furnished tankers and barges prior to loading unless specifically prohibited by the Government QR. All other shipping conveyances, exclusive of tankers or barges, shall be inspected by the Contractor prior to loading to determine suitability for loading. If the Contractor and the QR disagree as to the suitability for loading of Government furnished conveyance for supplies to be accepted at origin, the determination of the QR shall govern. If the SHIPMENT AND ROUTING clause is included in the contract, Government-furnished transportation equipment that is unsatisfactory for loading shall be reported by the Contractor in accordance with the provisions contained in that clause. Procedures to determine suitability to load tank trucks and tank cars shall include but not be limited to visual inspection of interior compartments to assure cleanliness and dryness. Manifolds must be drained and be clean and dry for intended product.

(d) When requested by the U.S. Government, the Contractor shall furnish no more than five (ten in the case of jet fuel) 1-gallon samples of liquid product or five 1-pound samples of solid or semi-solid product from any individual batch or lot of the supplies to be furnished under this contract. Such samples shall be furnished without charge to the Government and shall be packed, marked, and shipped by the Contractor, at its expense.

(e) The Contractor shall keep all quality and quantity records, including DD Form 250-series documents, complete and available to the Government during the performance of this contract and for three years after final payment under this contract.

(f) Immediately following award of this contract, the Contractor shall notify the QR of the source or sources of the supplies to be furnished under any item calling for delivery f.o.b. destination. The Contractor shall also notify the QR of any changes in source in sufficient time to permit inspection by the Government.

(g) The inspection system and related operations provided or performed pursuant to this clause shall be subject to surveillance by the QR.

## E1 CONT'D

**TABLE I**

**MINIMUM SAMPLING AND TESTING REQUIREMENTS<sup>(1)</sup>**

LOCATION	WHEN SAMPLED	TYPE OF SAMPLE	TYPE OF TEST
1. Refinery/Terminal Shipping Tank	Each Batch Prior to Commencement of Shipping	All Level or Single Tank Composite	A (2)
2. Shipping Line (All Modes):  Dedicated Line  Common Line	Prior to Loading/Shipping	Line	C  B
3. Custody Transfer Point	Immediately After Start of Shipment	Line	C
4. Tanker/Barge/Pipeline Custody Transfer Point	During Loading/Shipment	Representative Sample See Note, paragraph E1.a.(iii)	Retain Only
5. Tanker/Barge/Pipeline Custody Transfer Point	Hourly	Line	Visual (3) plus additive analysis for FSII & SDA, if line injected
6. Tanker/Barge First-In	After maximum of 3 feet loaded	Spot	C - plus Particulate and additive analysis for FSII & SDA, if line injected
7. Tanker/Barge	After Loading	Each Compartment	Workmanship, Density
8. Tanker/Barge	After Loading	Multi-Tank Composite of Each Product Loaded	B
9. Tank Car/Truck Loading Rack	After change of source tank.	Line	C - plus additive analysis for FSII & SDA, if line injected
10. Tank Cars/Truck/ Intermodal Containers	After Filling	All-Level	Workmanship: C - When loading lubes and FSII

**NOTES FOR TABLE I:**

- (1) AT THE GOVERNMENT'S OPTION, FULL SPECIFICATION TESTING MAY BE REQUIRED AT THE CUSTODY TRANSFER POINT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FURNISH THE GOVERNMENT WITH SATISFACTORY EVIDENCE OF SPECIFICATION COMPLIANCE.
- (2) AFTER A TYPE C TEST ON AN UPPER, MIDDLE, AND LOWER SAMPLE VERIFIES BATCH CONFORMANCE TO HOMOGENEITY REQUIREMENT. HOMOGENEITY REQUIREMENT IS DEFINED AS WHEN THE UPPER, MIDDLE, AND LOWER SAMPLE TEST RESULTS (MINIMUM - DENSITY/API GRAVITY) FALL WITHIN THE REPRODUCIBILITY LIMIT ESTABLISHED BY THE TEST METHOD.



- (3) CONTINUOUS IN-LINE ANALYZERS (I.E., DENSITY AND/OR FLASH POINT) ARE ACCEPTABLE, IN LIEU OF HOURLY EVALUATIONS, IF QUALITY IS ASSURED. WHEN CONTINUOUS IN-LINE ANALYZERS ARE PRESENT IN THE SYSTEM, THE CONTRACTOR SHALL PROVIDE ITS QUALITY CONTROL PROCEDURES AT TIME OF OFFER TO THE CONTRACTING OFFICER FOR DETERMINATION OF ACCEPTABILITY.

**TABLE II**

**SAMPLE RETENTION**

<b>TYPE OF SAMPLE</b>	<b>MINIMUM QUANTITY</b>	<b>RETENTION PERIOD</b>
Bulk Additives	2 Liters	Until Receipt and Quality Verification of New Lot/Batch
Drummed Additives	1 Liter	When Stocks Exhausted
Shipping Tank(s)	20 Liters - for Aviation Fuels and Lubricating Oils 10 Liters - for all other Fuels	45 Days
Composite Line (Tanker/Barge)	20 Liters - for Aviation Fuels and Lubricating Oils 10 Liters - for all other Fuels	45 Days
Composite Line (Pipeline)	20 Liters - for Aviation Fuels and Lubricating Oils 10 Liters - for all other Fuels	45 Days
Tank Truck/Car, Intermodal Container	1 Liter	15 Days (Lubes - 45 days)
Tanker/Barge Composite	20 Liters - for Aviation Fuels and Lubricating Oils 10 Liters - for all other Fuels	45 Days
Tanker/Barge Each Compartment	0.5 Liter	45 Days

TABLE III

**DEFINITIONS OF TEST SERIES**

- I. TYPE A: Includes all specification quality conformance tests plus any additional contractual requirements.
- II. TYPE B & C: As shown in the table below for each product. Properties and test methods will be in accordance with the product specification for each grade identified in the solicitation/contract.

	AVGAS		TURBINE FUELS		MOGAS		DIESELS/ KEROSENE		BURNER FUELS		LUBES		FSII
TEST PROPERTIES	B	C	B	C	B	C	B	C	B	C	B	C	C
Appearance	*	*	*	*	*	*	*	*			*	*	*
Particulate content	*		*								*		
Filtration Time			*										
Color	*	*	*	*	*	*	*	*			*	*	
Density <i>or</i> API Gravity or Specific Gravity	*	*	*	*	*	*	*	*	*	*	*	*	*
Distillation	*		*		*		*						
Corrosion, Copper Strip	*		*		*								
Existent Gum	*		*		*								
Carbon Residue							*		*				
Lean or Rich Ratings	*												
Reid Vapor Pressure	*		*		*								
Water Reaction			*										
Lead Content	*												
Freeze Point			*										
Flash Point			*	*			*	*	*	*	*	*	
FSII Content			*										
Microseparometer			*										
Conductivity			*										
Sediment & Water									*	*			
Viscosity									*		*	*	
Water Content									*		*	*	*
Foam Test											*	*(1)	

## E1 CONT'D

\* THE PROCEDURE TO BE USED FOR CONDUCTING THESE TESTS WILL BE AS STATED IN THE APPROPRIATE PRODUCT SPECIFICATION AND/OR CONTRACT.

(1) Only ASTM D 892 sequences 1 and 2 will be performed.

**TABLE IV**

**CONVERSION CHART FOR TANK CARS, TANK TRUCKS, AND INTERMODAL CONTAINERS<sup>(1)</sup>**

LAST PRODUCT CARRIED (2)	PRODUCT TO BE LOADED				
	JET FUEL JP-4 JET B MOGAS AVGAS	JET FUEL JP-5 JP-8 JET A/A1 DF-A, DL-A DFW KSN, KS1	DIESEL FUEL F76 (B) DF-1, 2 DL-1, 2	LUBRICATING OILS	FSII
AVGAS MOGAS JP-4 JET B	DRAIN EMPTY	STEAM DRY	STEAM DRY	STEAM DRY	STEAM DRY
JP-8, JP-5 JET A/A1 DF-A, DL-A DFW, KSN, KS1	DRAIN EMPTY (B)	DRAIN EMPTY (B)	DRAIN EMPTY (C)	STEAM DRY (B)	STEAM DRY (B)
F-76 DF-1, -2 DL-1, -2 ASTM D 975 NO. 1D, 2D ASTM D 396 NO. 1, 2	STEAM DRY (B)	DRAIN EMPTY (B)	DRAIN EMPTY (C)	STEAM DRY (B)	STEAM DRY (B)
ASTM D 396 NO. 4L, 4, 5L, 5H, 6 IFOs ASTM D 975 NO. 4D	NO LOAD	NO LOAD	NO LOAD	NO LOAD	NO LOAD
LUBRICATING OILS	NO LOAD	NO LOAD	STEAM DRY	DRAIN EMPTY (A)	NO LOAD
JET FUEL JPTS, JP-7	DRAIN EMPTY	DRAIN EMPTY	DRAIN EMPTY	STEAM DRY	STEAM DRY
FSII	DRAIN EMPTY	DRAIN EMPTY	DRAIN EMPTY	STEAM DRY	DRAIN EMPTY

**NOTES FOR TABLE IV:**

(1) When required, drain and empty includes the pump(s), filter(s), meter(s), and hose(s) as applicable.

(2) If a product is not listed in this column, permission to load and conveyance preparations require a waiver.

- (A) Applicable only when loading the same specification lubricating oils; otherwise, steam and dry.
- (B) If previous cargo contained dye marker, all traces of color must be removed.
- (C) If product to be loaded does not contain dye, the vehicle must not contain any traces of dye prior to loading.

## NONCONFORMING SUPPLIES AND SERVICES

(a) The Government may, at its discretion, accept nonconforming supplies or services. In such cases, the Contractor must obtain a deviation or waiver from the Contracting Officer prior to acceptance.

(b) The following procedures shall be used to request a deviation or waiver to the applicable nonconformance(s). A deviation is a request by a Contractor to deviate from the contract requirements after contract award, but prior to initial production of each product (for the duration of the contract). A waiver is a request by a Contractor to deviate from the contract requirements after initial production of each product (on a case-by-case basis or for a set period).

(1) Requests for deviations and waivers shall be submitted by the Contractor to the Contracting Officer with a copy to the Quality Representative (QR). Each request shall provide the following information: Contractor name; contract number; contract line item and product, if applicable; clause number, paragraph and subparagraph, as appropriate; the nature of the request; the reason for the request; the corrective action being taken by the Contractor to correct and prevent recurrence of the condition(s) causing the nonconformance; and equitable price adjustment offered over the administrative fee. In extraordinary situations, the Contractor may initially submit the request for a waiver, not a deviation, through the cognizant QR to the Contracting Officer or the Contracting Officer's Representative (COR) in the Quality Operations Division (DESC-BQ) of the Defense Energy Support Center (DESC). Extraordinary situation requests shall be submitted formally to the Contracting Officer prior to close of business of the next normal DESC workday (0800 to 1630 hours EST, Monday through Friday, Federal Holidays excluded). As used in this clause, the term extraordinary situation means the matter cannot await resolution until the next normal DESC workday. In addition, if either the Contracting Officer or the COR cannot be reached, the Duty Officer shall be contacted and provided the necessary information to forward to the proper individuals as soon as possible. The Duty Officer's telephone number is **(800) 286-7633** or **(703) 767-8420; (DSN) 427-8420**.

(2) If a deviation or waiver is granted, the contract will be modified to provide an equitable price reduction or other adequate consideration commensurate with the deviation or waiver being granted. If the situation dictates, a deviation or waiver may be granted without prior agreement on price adjustment or other consideration subject to agreement by the Contractor, or its representative, to subsequent negotiation. Such agreement shall be documented on the receiving document or other appropriate correspondence. After negotiations, failure to agree on adequate consideration shall be a dispute concerning a question of fact within the meaning of the Disputes paragraph of the CONTRACT TERMS AND CONDITIONS – COMMERCIAL ITEMS clause of this contract.

(3) If a deviation or waiver is granted and the nonconforming supplies are accepted, then in no event will consideration be less than \$250 to cover administrative costs, plus any additional cost of Government reinspection or retest, if necessary.

(4) If a deviation or waiver is granted modifying this contract but the supplies accepted are subsequently determined to be in conformity with contract specifications, the Contractor shall still be obligated to pay the consideration originally agreed upon in support of the deviation or waiver. If, however, this consideration exceeds \$500, a second contract modification shall be issued reducing the Contractor's obligation to \$500 (the administrative cost of issuing the two required modifications).

(c) When notification of nonconforming supplies is received after the supplies have been accepted, and the Government determines not to exercise its right to reject or to require correction under the INSPECTION OF SUPPLIES – FIXED-PRICE, INSPECTION AND ACCEPTANCE OF SUPPLIES (SHIPS' BUNKERS), or CONTRACT TERMS AND CONDITIONS – COMMERCIAL ITEMS clause, then in no event will consideration be less than \$250 to cover administrative costs. This \$250 fee is in addition to—

(1) Consideration commensurate with the extent of nonconforming supplies; and

(2) Cost of Government reinspection or retest, if necessary.

The administrative fee will apply to each claim letter issued for off-specification product delivered to an activity.

(d) Contractors shall be held responsible for payment of any fines or penalties imposed on a receiving activity by an environmental enforcement agency, resulting from the delivery of nonconforming supplies under a DESC contract.

(e) Repeated tender of nonconforming supplies or services, including those with only minor defects, will be discouraged by appropriate actions, including, but not limited to rejecting the supplies or services whenever feasible and documenting the Contractor's performance records.

## ATTACHMENT I

# STANDARDIZED FORMAT FOR USE IN THE PREPARATION OF PRODUCT TEST REPORTS

### GENERAL INSTRUCTIONS

**June 2003**

These instructions are designed for use as a guide in preparing/formatting test reports in a consistent manner. Computer generated or typed test reports are acceptable. A Standardized Test report format is provided at Figure I and includes all tests approved for all refined products. The Test Codes used in this standard report format will be incorporated into future Electronic Data Interchange (EDI) transmissions of test result data.

The ASTM Aviation Turbine Fuel Report Form found in ASTM Method D-1655 was used as a template for the expanded “generic” standard test report form for other refined products. The codes containing an alpha character indicate alternative methods used to measure a property or characteristic. A numeric change of “1” unit indicates one or more measurements, ratings or test conditions which can be reported for a particular method. All measurements are in metric units, except for the API gravity reported at 60°F.

The use of this code provides flexibility in adding or deleting test methods while not affecting the existing methods and thus eliminates the need for additional programming. For example, an ASTM method may have an equivalent ISO or other method. If the ASTM test method number is used as a reference, the ISO equivalent may be lost unless new programming is established to make it a choice. With the code, the equivalency will continue without any additional programming. Another example is adding a new test method for Freezing Point. There are currently 3 methods (300A-C) for measuring the characteristic of freezing point. The new method would be assigned the code “300D” and would be available immediately as an alternative method for determination of freezing point while retaining the old methods without having to renumber the whole list and change associated database programming.

Each test report should be tailored to include only those rows of information that are applicable to the specific product being tested and the methods used to evaluate each property. Select only those methods authorized by the product specification unless otherwise stated in the contract. The code used should be limited to the actual test method used for a particular analysis. If an analysis is performed which is not cited by the specification, report the result, units and method used at the bottom of the report. If a test code does not appear for a specification or contract approved method, contact the Defense Energy Support Center (DESC) at commercial (703) 767-8356.

### DETAILED INSTRUCTIONS FOR THE STANDARD TEST REPORT FORMAT (FIGURE 1)

**Item 1:** This date is the tank approval date, which is usually the date the testing is completed or the report date.

**Item 2B:** The City should match the “Shipped From” city on the DD 250-series document.

**Item 6A:** Record the basic slate of crudes from which this product is derived.

**Item 6B:** Annotate the refining processes used in the production of this product (e.g., Atmospheric Distillation; Hydrogenation, Hydrocracking, etc)

**Item 8:** Report the quantity in US Gallons shipped from the above batch in the above tank under DESC Contract. This entry need not be completed if the same batch will be used for subsequent shipments. In this case, assure that the tank number, batch number and report date are on the DD-250-series documents for shipments made from this tank

**Items 600-series:** The JFTOT test, although done using one ASTM test method, can be performed at different temperatures. Also, results for separate JFTOT analysis performed at two different temperatures can be reported on the same report. If test results for only one temperature is being reported, use Item 600 A-C to report the temperature of the test and 601, 602 and 603 as appropriate to report the results. If a second temperature is being reported, use Item 604 to report the temperature of this second run and Items 605-607 to report the corresponding values for the second test.

**Item 750:** Use this item to report the result of the Water Separometer Index - Modified (WSIM) which is performed for product acceptance.

**Item 751:** This code for this item describes what additives were present in the fuel sample tested for WSIM and for which the result was reported in Item 750. Each code value represents a combination of the five additives possible in jet fuel. The codes and corresponding combinations are found in Table A below.

**Item 750X:** This item is used to report the special hand blend of all additives which are required by the fuel specification, regardless of whether or not the additives are required by contract. These additives include anti-oxidant, corrosion inhibitor, fuel system icing inhibitor, static dissipater additive and, if permitted by contract, metal deactivator. The result for this special test is a report only and is used as a base line in determining if the time and/or place of additive injection affects fuel quality. This reporting requirement is in addition to other reporting requirements for WSIM.

**Items 801, 811, 821, 831, and 841:** These codes indicate when an additive was injected during the procurement process. It is a one-character field and is "S" if the additive was blended into the shipping tank, "I" if the additive was line injected, or blank if the additive was not injected at the refinery or terminal location.

**Table A**

<u>Code</u>	<u>Additives</u>	<u>Code</u>	<u>Additives</u>	<u>Code</u>	<u>Additives</u>	<u>Code</u>	<u>Additives</u>	<u>Code</u>	<u>Additives</u>
01	Neat	07	AO/CI	13	CI/MDA	19	AO/CI/MDA	25	FSII/SDA/MDA
02	AO	08	AO/FSII	14	FSII/SDA	20	AO/FSII/MDA	26	AO/CI/FSII/SDA
03	CI	09	AO/SDA	15	FSII/MDA	21	AO/FSII/SDA	27	AO/FSII/SDA/MDA
04	FSII	10	AO/MDA	16	MDA/SDA	22	AO/SDA/MDA	28	CI/FSII/SDA/MDA
05	SDA	11	CI/FSII	17	AO/CI/FSII	23	CI/FSII/SDA	29	AO/CI/FSII/SDA/MDA
06	MDA	12	CI/SDA	18	AO/CI/SDA	24	CI/FSII/MDA		

## FIGURE I - STANDARD TEST REPORT FORMAT

1 REPORT DATE: (MM/DD/YY)\_\_\_\_\_

2A CONTRACTOR: \_\_\_\_\_

2B REFINERY CITY: \_\_\_\_\_

2C STATE/COUNTRY: \_\_\_\_\_

3A CONTRACT NUMBER: (SPO600-YY-D-NNNN)\_\_\_\_\_

3B CONTRACT LINE ITEM NUMBER: \_\_\_\_\_

3C \_\_\_\_\_  
DESC ORDER NUMBER

4A TANK NUMBER: \_\_\_\_\_

4B BATCH NUMBER (In Tank): \_\_\_\_\_

4C SAMPLE NUMBER: \_\_\_\_\_

5 PRODUCT: \_\_\_\_\_

6A CRUDE OIL SLATE: \_\_\_\_\_

6B CRUDE PROCESSING TECHNIQUE: \_\_\_\_\_

7 SHIPPED TO: \_\_\_\_\_

8 QUANTITY FROM TANK SHIPPED TO DESC: \_\_\_\_\_USG

### APPEARANCE

<u>Code</u>	<u>Method</u>	<u>Test</u>	<u>Unit</u>	<u>Code</u>	<u>Method</u>	<u>Test</u>	<u>Unit</u>
010A	D-156	Saybolt Color	1-Color	021	D-4176	Haze Rating	Method
010B	D-6045	Saybolt Color (Spectro)	1-Color				
020	D-4176	Visual appearance		030A	D-1500	ASTM Color	0.5-
		Pass/Fail				Color	
				030B	D-6045	ASTM Color (Spectro)	0.5-Color

### COMPOSITION

<u>Code</u>	<u>Method</u>	<u>Test</u>	<u>Unit</u>	<u>Code</u>	<u>Method</u>	<u>Test</u>	<u>Unit</u>
100A	D-664	Total Acid Number – Potent				mg KOH/g	
100B	D-974	Acid Number - Color Titrat		105A	D-4420	Benzene	vol%
100C	D-3242	Acidity in Aviation Fuels		105B	D-3606	Benzene	vol%
100D	D-3339	Acid Number, Semi-Micro				mg KOH/g	
101	IP-182	Inorganic Acid Number mg		130	D-3227	Mercaptan Sulfur	mass %
		KOH/g		135	D-3231	Phosphorous	0.1 mg/L
				140	D-4952	Doctor Test	Pos/Neg
102	FTM-5101			150A	D-129	Sulfur by Oxygen Bomb	mass %
	Neutrality		Method	150B	D-1266	Sulfur by Lamp	mass %
110A	D-1319	Aromatics	vol%	150C	D-1552	Sulfur - Furnace	mass %
110B	D-4420	Aromatics by GC	vol%	150D	D-2622	Sulfur by X-Ray Spec	mass %
115	D-1319	Olefins	vol%	150E	D-3120	Trace Sulfur	ppm
120	D-1840	Naphthalene	vol%	150F	D-4294	Sulfur by X-Ray Flour	mass %
				150G	D-5453	Sulfur by UV	ppm



160A	D-3343	Hydrogen Content	mass %
160B	D-3701	Hydrogen Content - NMR	
160C	D-4808	Hydrogen Cont LoRes NMR	
160D	D-5291	Hydrogen Cont – Instrument	
165	D-5184	Al plus Si (ISO 10478)	ppm
170A	D-3237	Lead in Gasoline by AA	g/L
170B	D-3341	Lead in Gasoline by ICl	g/L
170C	D-5059	Lead in Gasoline by X-Ray	
180A	D-4815	Ethers and Alcohols by GC	

180B	D-5845	Ethers and Alcohols by IR	
		mass %	
190S	D-3605	Trace Metals - Calcium	mg/L
191S	D-3605	Trace Metals - Lead	mg/L
192	D-3605	Trace Metals - Na & K	mg/L
193A	D-3605	Trace Metals - Vanadium	mg/L
193B	ISO14597	Trace Metals – Vanadium	mg/L
195	D-3703	Peroxide Content	mg/kg
		mass %	

### **VOLATILITY**

Code	Method	Test	Unit
200A	D-86	Distillation by Auto/Manual	
200B	D-2887	Distillation by GC	
201		Initial Boiling Point	°C
202		10% Recovered	°C
203		20% Recovered	°C
204		50% Recovered	°C
205		85% Recovered	°C
206		90% Recovered	°C
207		95% Recovered	°C
208		Evaporated @ 70°C	vol%
209		Evaporated @ 100°C	vol%
210		Evaporated @ 180°C	vol%
211		Final Boiling Point	°C
212		% Recovered	vol%
213		% Residue	vol%
214		% Loss	vol%
215		% Residue + Loss	vol%
220A	D-56	Flash Point - Tag	°C
220B	D-93	Flash Point - P/M	°C
220C	D-3828	Flash Point - Seta, Method A	
220D	D-3828	Flash Point - Seta, Method B	

Code	Method	Test	Unit	
220E	IP-170	Flash Point - Abel	°C	
221	D-3828	Flash Point - Seta (Flash/No F) or “N”		“F”
230A	D-1298	Density @ 15°C -Hydrom	kg\L	
230B	D-4052	Density @ 15°C - Digital	kg\L	
231A	D-1298	API Gravity @ 60°F	°API	
231B	D-4052	API Gravity @ 60°F	°API	
231C	D-287	API Gravity @ 60°F	°API	
240A	D-323	RVP	kPa	
240B	D-4953	Vapor Press - Dry Meth	kPa	
240C	D-5190	Vapor Press - Automatic	kPa	
240D	D-5191	Vapor Press - Mini Meth	kPa	
240E	D-5482	Vapor Press - Mini -Atm	kPa	
250A	D-2533	V/L Ratio - Buret	Unit@°C	
250B	D-5188	V/L Ratio - Evac Chamb	Unit@°C	
250C	D-4814	Estimated V/L Ratio	Unit@°C	
260C	STANAG		7090 - Vapor	
Lock	Index			

**FLUIDITY**

<b>Code</b>	<b>Method</b>	<b>Test</b>	<b>Unit</b>	<b>Code</b>	<b>Method</b>	<b>Test</b>	<b>Unit</b>
300A	D-2386	Freezing Point	°C	320C	D-5772	Cloud Point (Linear Cool)	°C
300B	D-5901	Freezing Point	°C	320D	D-5773	Cloud Point (Constant Cool)	°C
300C	D-5972	Freezing Point	°C				
300D	D-4305	Freezing Point, Low Temps	°C	321A	IP-309	Cold Filter Plugging Point	°C
				321B	D-6371	Cold Filter Plugging Point	°C
310	D-445	Viscosity		321C	D-6371(M)	Cold Filter Plugging Point	°C
		cSt					
311	D-445	Viscosity Temperature	°C	330A	D-97	Pour Point	°C
320A	D-2500	Cloud Point	°C	330B	D-5949	Pour Point – Pulsing Method	°C
320B	D-5771	Cloud Point (Optical)	°C	340	D-6079	Lubricity (Wear Scar)	0.01 mm

**COMBUSTION**

<b>Code</b>	<b>Method</b>	<b>Test</b>	<b>Unit</b>	<b>Code</b>	<b>Method</b>	<b>Test</b>	<b>Unit</b>
400A	D-240	Neat Heat by Bomb		400H	D-2382	Net Heat by Bomb – Precision	
		MJ/kg				MJ/kg	
400B	D-1405	Net Heat (Anal-Grav(°F),S)		410	D-1740	Luminometer Number	Unit
		MJ/kg		420	D-1322	Smoke Point	mm
400C	D-3338	Net Heat (Aromat,API,Dist,S)		430	D-482	Ash Content	mass %
400D	D-4529	Net Heat (Dens-Anal(°C),S)					
400E	D-4809	Net Heat by Bomb-Precision		440A	D-189	Conradson Carbon Res	mass %
400F	D-4868	Net and Gross Heat		440B	D-524	Ramsbottom Carbon Res	mass %
		MJ/kg		440C	D-4530	Carbon Residue - Micro	mass %
400G	D-6446	Net Heat of Aviation Fuels					
		MJ/kg					

## CORROSION

Code	Method	Test	Unit
500	D-130 Method	Copper Strip Corrosion	

<u>Code</u>	<u>Method</u>	<u>Test</u>	<u>Unit</u>
510	IP-227	Silver Strip Corrosion	Method

## STABILITY

<b>Code</b>	<b>Method</b>	<b>Test</b>	<b>Unit</b>
600A	D-3241	JFTOT @ 275°C	
600B	D-3241	JFTOT @ 260°C	
600C	D-3241	JFTOT @ 245°C	
601	D-3241	Pressure Change	mm Hg
602	D-3241 Method	Visual Rating	
603	D-3241 Method	Spun Rating	
604	D-3241	Other JFTOT Temperature	°C
605	D-3241	Pressure Change @ Other Temp	
606	D-3241	Visual Rating @ Other Temp	
607	D-3241	Spun Rating @ Other Temp	

<b>Code</b>	<b>Method</b>	<b>Test</b>	<b>Unit</b>
608	D-3241	Serial Number for 600A Tube	
609	D-3241	Serial Number for 604 Tube	
610A	D-525	Ox Stability -Gasoline	minute
610C	D-873	Ox Stability – Aviation Fuels	
		mg/100mL	
620A	D-2274	Accelerated Stability	mg/100mL
620B	D-5304	Accelerated Stab - O <sub>2</sub> Opres	
		mg/100mL	
620C	D-5304	Accelerated Stab - O <sub>2</sub> Opres	
		mg/100mL	
620H	ISO10307		Tot Sed in
620H	ISO10307		Tot Sed in
Residual	Fuels	%mass	
Method			

## CONTAMINANTS

<b>Code</b>	<b>Method</b>	<b>Test</b>	<b>Unit</b>
700	IP-225	Copper Content	ppb
710	D-381	Existent Gum	
		mg/100mL	
711	D-381	Washed Gum	
		mg/100mL	
720A	D-2276	Particulate Cont	mg/L
720B	D-5452	Particulate Cont	mg/L
720D	D-6217	Particulate Cont – Middle Dist	
730	Annex	Filtration Time	minutes
740	D-1094	Water Reaction - Interface Method	
741	D-1094	Water Reaction - Separation	
742	D-1094	Water Reaction - Vol Chng	
750	D-3948	WSIM	Method
751		Additives Present (See Note)	

<b>Code</b>	<b>Method</b>	<b>Test</b>	<b>Unit</b>
760	D-4814	Phase Separation (Haze)	°C
761	D-4814	Phase Separation (Sep)	°C
770	D-1401	Demulsification @ 25°C	minutes
780A	D-1796	Water & Sed	vol%
780B	D-2709	Water & Sed	vol%
781A	D-95	Water by Distillation	vol%
781B	D-6304	Water by Karl Fischer	mg/kg
782	D-473	Sediment by Extraction	mass %
Method			
795	SW-846	EPA Metals - As	Method
796	SW-846	EPA Metals - Cd	Method
797	SW-846	EPA Metals - Cr	Method
798A	SW-846	EPA Metals - Pb	Method
798B	SW-846	EPA Metals - Pb	Method
799	SW-846	EPA Metals - Pb	Method
799A	SW-846	EPA Metals - Pb	Method
799B	SW-846	EPA Metals - Pb	Method
799C	SW-846	EPA Metals - Pb	Method
799D	SW-846	EPA Metals - Pb	Method
799E	SW-846	EPA Metals - Pb	Method
799F	SW-846	EPA Metals - Pb	Method
799G	SW-846	EPA Metals - Pb	Method
799H	SW-846	EPA Metals - Pb	Method
799I	SW-846	EPA Metals - Pb	Method
799J	SW-846	EPA Metals - Pb	Method
799K	SW-846	EPA Metals - Pb	Method
799L	SW-846	EPA Metals - Pb	Method
799M	SW-846	EPA Metals - Pb	Method
799N	SW-846	EPA Metals - Pb	Method
799O	SW-846	EPA Metals - Pb	Method
799P	SW-846	EPA Metals - Pb	Method
799Q	SW-846	EPA Metals - Pb	Method
799R	SW-846	EPA Metals - Pb	Method
799S	SW-846	EPA Metals - Pb	Method
799T	SW-846	EPA Metals - Pb	Method
799U	SW-846	EPA Metals - Pb	Method
799V	SW-846	EPA Metals - Pb	Method
799W	SW-846	EPA Metals - Pb	Method
799X	SW-846	EPA Metals - Pb	Method
799Y	SW-846	EPA Metals - Pb	Method
799Z	SW-846	EPA Metals - Pb	Method
799AA	SW-846	EPA Metals - Pb	Method
799AB	SW-846	EPA Metals - Pb	Method
799AC	SW-846	EPA Metals - Pb	Method
799AD	SW-846	EPA Metals - Pb	Method
799AE	SW-846	EPA Metals - Pb	Method
799AF	SW-846	EPA Metals - Pb	Method
799AG	SW-846	EPA Metals - Pb	Method
799AH	SW-846	EPA Metals - Pb	Method
799AI	SW-846	EPA Metals - Pb	Method
799AJ	SW-846	EPA Metals - Pb	Method
799AK	SW-846	EPA Metals - Pb	Method
799AL	SW-846	EPA Metals - Pb	Method
799AM	SW-846	EPA Metals - Pb	Method
799AN	SW-846	EPA Metals - Pb	Method
799AO	SW-846	EPA Metals - Pb	Method
799AP	SW-846	EPA Metals - Pb	Method
799AQ	SW-846	EPA Metals - Pb	Method
799AR	SW-846	EPA Metals - Pb	Method
799AS	SW-846	EPA Metals - Pb	Method
799AT	SW-846	EPA Metals - Pb	Method
799AU	SW-846	EPA Metals - Pb	Method
799AV	SW-846	EPA Metals - Pb	Method
799AW	SW-846	EPA Metals - Pb	Method
799AX	SW-846	EPA Metals - Pb	Method
799AY	SW-846	EPA Metals - Pb	Method
799AZ	SW-846	EPA Metals - Pb	Method
799BA	SW-846	EPA Metals - Pb	Method
799BB	SW-846	EPA Metals - Pb	Method
799BC	SW-846	EPA Metals - Pb	Method
799BD	SW-846	EPA Metals - Pb	Method
799BE	SW-846	EPA Metals - Pb	Method
799BF	SW-846	EPA Metals - Pb	Method
799BG	SW-846	EPA Metals - Pb	Method
799BH	SW-846	EPA Metals - Pb	Method
799BI	SW-846	EPA Metals - Pb	Method
799BJ	SW-846	EPA Metals - Pb	Method
799BK	SW-846	EPA Metals - Pb	Method
799BL	SW-846	EPA Metals - Pb	Method
799BM	SW-846	EPA Metals - Pb	Method
799BN	SW-846	EPA Metals - Pb	Method
799BO	SW-846	EPA Metals - Pb	Method
799BP	SW-846	EPA Metals - Pb	Method
799BQ	SW-846	EPA Metals - Pb	Method
799BR	SW-846	EPA Metals - Pb	Method
799BS	SW-846	EPA Metals - Pb	Method
799BT	SW-846	EPA Metals - Pb	Method
799BU	SW-846	EPA Metals - Pb	Method
799BV	SW-846	EPA Metals - Pb	Method
799BW	SW-846	EPA Metals - Pb	Method



**ADDITIVES**

<b>Code</b>	<b>Method</b>	<b>Test/Additive</b>	<b>Unit</b>	<b>Code</b>	<b>Method</b>	<b>Test/Additive</b>	<b>Unit</b>
800A	Antioxidant	Topanol A	mg/L	830B	FSII (FTM-5327)		vol%
800B	Antioxidant	HITEC 4733	mg/L	830C	FSII (FTM-5340)		vol%
800C	Antioxidant	AN 733	mg/L	830D	FSII (FTM-5340) - EGME		vol%
800D	Antioxidant	AO-31	mg/L	830E	FSII – Calculated		vol%
800E	Antioxidant	AO-30	mg/L	831	Additive Injection Point		(Note)
800F	Antioxidant	AO-29	mg/L				
800G	Antioxidant	Nalco EC5208A	mg/L	840A	Corr Inhibitor	PRI-19	mg/L
800H	Antioxidant	TOLAD 3915	mg/L	840B	Corr Inhibitor	DCI-4A	mg/L
800I	Antioxidant	TOLAD 3920	mg/L	840C	Corr Inhibitor	DCI-6A	mg/L
800J	Antioxidant	TOPANOL AN	mg/L	840D	Corr Inhibitor	HITEC 580	mg/L
800K	Antioxidant	CHIMIC 4327	mg/L	840E	Corr Inhibitor	Petrolite NC-351	mg/L
800L	Antioxidant	AO-37	mg/L	840F	Corr Inhibitor	NALCO 5403	mg/L
800M	Antioxidant	BETZ BQ203	mg/L	840G	Corr Inhibitor	TOLAD 3220	mg/L
800N	Antioxidant	Chemlink No 4650	mg/L	840H	Corr Inhibitor	UNICOR J	mg/L
800O	Antioxidant	Petroxylin E219	mg/L	840I	Corr Inhibitor	IPC-4410	mg/L
800P	Antioxidant	Kerobit TP-26	mg/L	840J	Corr Inhibitor	IPC-4445	mg/L
800Q	Antioxidant	Pet411K	mg/L	840K	Corr Inhibitor	MOBILAD F800	mg/L
800R	Antioxidant	ISONOX 133	mg/L	840L	Corr Inhibitor	NALCO 5405	mg/L
800S	Antioxidant	AO-37B	mg/L	840M	Corr Inhibitor	NUCHEM PCI-105	mg/L
800T	Antioxidant	ISONOX 75	mg/L	840N	Corr Inhibitor	TOLAD 249	mg/L
800U	Antioxidant	HITEC 4775	mg/L	840O	Corr Inhibitor	WELCHEM 91120	mg/L
800V	Antioxidant	BETZ 8Q2065	mg/L	840P	Corr Inhibitor	SPEC-AID 8021	mg/L
800W	Antioxidant	BHT	mg/L	840Q	Corr Inhibitor	RPS-613	mg/L
800X	Antioxidant	HITEC 4778	mg/L	840R	Corr Inhibitor	SPEC AID 8Q22	mg/L
800Y	Antioxidant	Octel 37/70	mg/L	840S	Corr Inhibitor	TOLAD 4410	mg/L
801	Additive Injection Point			841	Additive Injection Point		(Note)
	(Note)						
				850	Thermal Stability Additive		mg/L
810A	Metal Deactivator (DMD)		mg/L	851	Additive Injection Point		(Note)
810B	Metal Deactivator (DMD-2)		mg/L				
811	Additive Injection Point			860	Diesel Fuel Stabilizer Additive		mg/L
	(Note)			861	Additive Injection Point		(Note)
820	Conductivity Improver	mg/L		870	Ignition Improver		mg/L
821	Additive Injection Point			871	Additive Injection Point		(Note)
	(Note)						
830A	FSII (D-5006)		vol%				

**OTHER TESTS**

<b>Code</b>	<b>Method</b>	<b>Test</b>	<b>Unit</b>	<b>Code</b>	<b>Method</b>	<b>Test</b>	<b>Unit</b>
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900	D-2624	Conductivity	pS/m	
901	D-2624	Temperature at Measurement		°C
910A	D-976	Calc Cetane Index - 2 Var	Method	
910B	D-4737	Calc Cetane Index - 4 Var	Method	
911	D-613	Cetane Number	Method	
920A	D-2699	Research Octane Number	Method	
920B	D-2885	Research Octane Number	Method	
921A	D-2700	Motor Octane Number	Method	
921B	D-2885	Motor Octane Number	Method	
930	D-611	Aniline Point		°C
940	D-4814	Water Tolerance		°